#### Message

From: Turkiewicz, Katarzyna (Kasia)@ARB [kasia.turkiewicz@arb.ca.gov]

**Sent**: 9/20/2019 5:41:56 PM

To: Ungvarsky, John [Ungvarsky.John@epa.gov]

Subject: RE: Call

**Attachments**: Alternative Contingency Revised 9\_20\_19.xlsx

#### John,

I am not sure how you got 0.0019 for the 3% voluntary compliance. I get 0.0006 tpd for the voluntary compliance and 0.0017 if I assume that 3% of Zone 2 households will change out as part of the voluntary curtailment (they became aware of the danger of Woodsmoke and incentive opportunity, etc.). See attached.

From: Ungvarsky, John < Ungvarsky. John@epa.gov>

Sent: Friday, September 20, 2019 9:06 AM

To: Turkiewicz, Katarzyna (Kasia)@ARB <kasia.turkiewicz@arb.ca.gov>

Subject: RE: Call

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How about at 11:00?

I've continued to tinker with the table, and I'm also hoping to get some feedback today from Jeanhee.

	2021	2022
Inventory in Plan	0.4863	0.4866
Change-outs (2016-2020)	-0.0745	-0.0745
Mobile source reductions (in 2022?)	-0.0001	-0.0001
Open burning reductions (in 2022?)		
Curtailment (25% compliance)	-0.0017	-0.0017
Updated inventory after controls	0.4100	0.4103
Reductions from contingency measure (CM)		
Curtailment (50% compliance, 25 increase from 2021)		-0.0017
Changeouts (25% in Portola)		-0.0049
Voluntary curtailment (3% compliance outside of Portola)		-0.0019
Total CM reductions		0.0085
2022 Inventory after CM		0.4018
2021 Updated inventory after controls but before CM		0.4100
Change in inventory		0.0082

## John Ungvarsky

Environmental Scientist USEPA Region IX, Air Division San Francisco, CA 415-972-3963 From: Turkiewicz, Katarzyna (Kasia)@ARB < kasia.turkiewicz@arb.ca.gov>

**Sent:** Friday, September 20, 2019 8:03 AM **To:** Ungvarsky, John < <u>Ungvarsky</u>, John @epa.gov>

Subject: RE: Call

Sure, what time?

From: Ungvarsky, John < <u>Ungvarsky John@epa.gov</u>> Sent: Thursday, September 19, 2019 4:55 PM

To: Turkiewicz, Katarzyna (Kasia)@ARB < kasia.turkiewicz@arb.ca.gov>

Subject: RE: Call

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kasia -

Can we talk on Friday?

We suggest using a variation of the table below in an update analysis doc.

We suggest calculating reductions from the voluntary curtailment program for the area outside of Portola. Assume 3% compliance for remaining stoves and fireplaces after 465 changeouts needed for attainment.

## **Estimating Benefits of Contingency 2023**

Assume 50% compliance rate and 25% of households changing out their devices

		Fireplace	
Category	Stove	before	Total
Emission Factor (lb PM2.5/ton of wood)	30.6	34.6	
Wood use annual (cords)	4.3	6	
Wood density (ton/cord)	1.04	1.04	
Conversion from lb to ton	2000	2000	
Number of Devices	34	54	88
Emissions (tpy)	2.3292	5.7927	8.1220
Emissions (tpd)	0.0064	0.0159	0.0223
50% compliance on 31% of days	0.0010	0.0025	0.0034
25% of Households changing devices	0.0013	0.0036	0.0049
3% compliance of voluntary curtailment outside of Portola	0.0021	0.0011	0.0019
Total Contingency			0.0082

We'd like for you to create a table showing reductions from the 2022 inventory (for example)

	2021	2022
Inventory in Plan	0.4863	0.4866
Changouts (2016-2020)	-0.0745	-0.0745
Mobile source reductions (in 2022?)	-0.0001	-0.0001
Open burning reductions (in 2022?)		
Curtailment (25% compliance)	-0.0017	-0.0017
Updated inventory after controls	0.4100	0.4103

Reductions from contingency measure	
Curtailment (50% compliance)	-0.0017
Changeouts (25% in Portola)	-0.0049
Voluntary curtailment (3% compliance outside of Portola)	-0.0019
2022 Inventory after contingency measure	0.4018
2021 Inventory	0.4100
change in inv	0.0082

# John Ungvarsky

Environmental Scientist USEPA Region IX, Air Division San Francisco, CA 415-972-3963

From: Turkiewicz, Katarzyna (Kasia)@ARB < kasia.turkiewicz@arb.ca.gov>

**Sent:** Thursday, September 19, 2019 1:32 PM **To:** Ungvarsky, John < <u>Ungvarsky</u>. John@epa.gov>

Subject: RE: Call

OK

From: Ungvarsky, John < <u>Ungvarsky John@epa.gov</u>> Sent: Thursday, September 19, 2019 1:31 PM

To: Turkiewicz, Katarzyna (Kasia)@ARB < kasia.turkiewicz@arb.ca.gov>

Subject: RE: Call

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I'll call you later

## John Ungvarsky

Environmental Scientist USEPA Region IX, Air Division San Francisco, CA 415-972-3963

From: Turkiewicz, Katarzyna (Kasia)@ARB < kasia.turkiewicz@arb.ca.gov>

**Sent:** Thursday, September 19, 2019 1:30 PM **To:** Ungvarsky, John < <u>Ungvarsky</u>.John@epa.gov>

Subject: Call

John,

I am so sorry. Someone had stolen the conference room from me. Could you call my office at (916) 445-6497.

Kasia Turkiewicz Air Resources Engineer California Air Resources Board